

In the Claims:

Listing of claims:

1. (Currently amended): A generally cylindrical expansible shaft having an outer profile, said shaft comprising:

a generally cylindrical inner body having a longitudinal axis and at least one first coupling, each said at least one first coupling being at least one pair of spaced apart longitudinally extending hook elements, each pair defining longitudinally extending walls of a longitudinally extending channel therebetween;

at least two arcuate leaf elements being movably coupled to said at least one first coupling of said inner body by means of at least one second coupling, each said at least one second coupling being at least one pair of spaced apart longitudinally extending hook elements complementary to and cooperating with said spaced apart longitudinally extending hook ~~members~~ elements of said at least one first coupling to limit radial movement of said at least two arcuate leaf elements relative to said generally cylindrical inner body, said at least two arcuate leaf elements together substantially forming said outer profile of said generally cylindrical expansible shaft; and

at least one thrusting element being operatively disposed ~~between~~ in each longitudinally extending channel and between said at least two arcuate leaf elements and said inner body to move said at least two arcuate leaf elements radially outwards relative to said longitudinal axis to increase an outer diameter of said shaft when in a first configuration and allow said at least

two arcuate leaf elements to move radially inwards relative to said longitudinal axis to decrease said outer diameter of said shaft when in a second configuration.

2. (Previously presented): A shaft according to claim 1, wherein said at least two arcuate leaf elements being resiliently biased radially inwards by means of at least one spring disposed between said inner body and said at least two arcuate leaf elements.

3. (Previously presented): A shaft according to claim 2, wherein each said spring being one of a leaf, wave and coil spring.

4. (Previously presented): A shaft according to claim 1, wherein said hook elements of said at least one first and second couplings being cooperating pairs of diverging and converging complementary hook elements.

5. (Canceled).

6. (Previously presented): A shaft according to claim 1, wherein said at least two arcuate leaf elements are three arcuate leaf elements.

7. (Previously presented): A shaft according to claim 1, wherein each of said at least two arcuate leaf elements including a plurality of knurls on an outer surface for increasing friction of engagement with a core of a product to be gripped.

8. (Previously presented): A shaft according to claim 1, further comprising an air journal removably coupled with said inner body and including an intake opening for permitting air to be supplied to said at least one thrusting element for moving said at least two arcuate leaf elements to said first configuration from said second configuration.

9. (Previously presented): A shaft according to claim 8, wherein said air journal further including an exit opening for permitting air to be removed from said at least one thrusting element for moving said at least two arcuate leaf elements to said second configuration from said first configuration.

10. (Previously presented): A shaft according to claim 8, wherein said air journal further including at least one locking member engageable with said inner body for imparting rotational torque transmission to said shaft.

11. (Previously presented): A shaft according to claim 8, wherein said air journal further including at least one locking member engageable with a journal end connectable to a drive unit for driving said shaft for imparting rotational torque transmission to said shaft.

12. (Currently amended): An expansible shaft having an outer profile, said shaft comprising: an inner body having a longitudinal axis and at least one first coupling, each said at least one first coupling being at least one pair of spaced apart longitudinally extending hook elements, each pair defining longitudinally extending walls of a longitudinally extending channel therebetween;

at least two leaf elements being movably coupled to said at least one first coupling of said inner body by means of at least one second coupling, each said at least one second

coupling being at least one pair of spaced apart longitudinally extending hook elements complementary to and cooperating with said spaced apart longitudinally extending hook ~~members~~elements of said at least one first coupling to limit radial movement of said at least two leaf elements relative to said inner body, said at least two leaf elements together substantially forming said outer profile of said expansible shaft; and

at least one thrusting element being operatively disposed ~~between~~in each longitudinally extending channel and between said at least two leaf elements and said inner body to move said leaf elements radially outwards relative to said longitudinal axis to increase an outer perimeter of said shaft when in a first configuration and allow said at least two leaf elements to move radially inwards relative to said longitudinal axis to decrease said outer perimeter of said shaft when in a second configuration.

13. (Previously presented): A shaft according to claim 12, wherein said at least two leaf elements being resiliently biased radially inwards by means of at least one spring disposed between said inner body and said at least two leaf elements.

14. (Previously presented): A shaft according to claim 13, wherein each said spring being one of a leaf, wave and coil spring.

15. (Previously presented): A shaft according to claim 12, wherein said hook elements of said at least one first and second couplings being pairs of diverging and converging complementary hooks.

16. (Previously presented): A shaft according to claim 12, wherein each of said at least two leaf elements including a plurality of knurls on an outer surface for increasing friction of engagement with a core of a product to be gripped.

17. (Previously presented): A shaft according to claim 12, further comprising an air journal removably coupled with said inner body and including an intake opening for permitting air to be supplied to said at least one thrusting element for moving said at least two leaf elements to said first configuration from said second configuration.

18. (Previously presented): A shaft according to claim 17, wherein said air journal further including an exit opening for permitting air to be removed from said thrusting element for moving said leaf elements to said second configuration from said first configuration.

19. (Previously presented): A shaft according to claim 17, wherein said air journal further including at least one locking member engageable with said inner body for imparting rotational torque transmission to said shaft.

20. (Previously presented): A shaft according to claim 17, wherein said air journal further including at least one at least one locking member engageable with a journal end connectable to a drive unit for driving said shaft for imparting rotational torque transmission to said shaft.

21. (Currently amended) A generally cylindrical expandable shaft ~~according to claim 13,~~
~~wherein~~ having an outer profile, said shaft comprising:

an inner body having a longitudinal axis and at least one first coupling, each said at least one first coupling being at least one pair of longitudinally extending hook elements;

at least two leaf elements being movably coupled to said at least one first coupling of said inner body by means of at least one second coupling, each said at least one second coupling being at least one pair of longitudinally extending hook elements complementary to and cooperating with said longitudinally extending hook elements of said at least one first coupling to limit radial movement of said at least two leaf elements relative to said inner body, said at least two leaf elements together substantially forming said outer profile of said expansible shaft;

at least one thrusting element being operatively disposed between each said at least two leaf elements and said inner body to move said leaf elements radially outwards relative to said longitudinal axis to increase an outer perimeter of said shaft when in a first configuration and allow said at least two leaf elements to move radially inwards relative to said longitudinal axis to decrease said outer perimeter of said shaft when in a second configuration; and

at least one spring disposed between said inner body and said at least two leaf elements to resiliently bias radially inward said at least two leaf elements, said at least one spring being disposed between said at least one first and second couplings.

22. (Currently amended) ~~[[A]]~~An expansible shaft according to claim 2, wherein having an outer profile, said shaft comprising:

a generally cylindrical inner body having a longitudinal axis and at least one first coupling, each said at least one first coupling being at least one pair of longitudinally extending hook elements;

at least two arcuate leaf elements being movably coupled to said at least one first coupling of said inner body by means of at least one second coupling, each said at least one second coupling being at least one pair of longitudinally extending hook elements complementary to and cooperating with said longitudinally extending hook elements of said at least one first coupling to limit radial movement of said at least two arcuate leaf elements relative to said generally cylindrical inner body, said at least two arcuate leaf elements together substantially forming said outer profile of said generally cylindrical expandable shaft;

at least one thrusting element being operatively disposed between each said at least two arcuate leaf elements and said inner body to move said at least two arcuate leaf elements radially outwards relative to said longitudinal axis to increase an outer diameter of said shaft when in a first configuration and allow said at least two arcuate leaf elements to move radially inwards relative to said longitudinal axis to decrease said outer diameter of said shaft when in a second configuration; and

at least one spring disposed between said inner body and said at least two arcuate leaf elements to resiliently bias radially inwards said at least two arcuate leaf elements, said at least one spring being disposed between said at least one first and second couplings.